

BELFAST AREA PLAN

Phase 1 Report: A Basis for Assessment

September 2008



Prepared by

Christchurch City Council

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DISCLAIMER

The Council does not guarantee the accuracy of the data or information contained in this Phase 1 Report. Whilst every endeavour has been made to compile data and information that is up to date and relevant, not all of it has been, or is capable of being verified. This report should not be relied upon for the purposes of any proposed property transaction, including subdivision or land use approvals and building consents. The recommendations provided in this report do not guarantee that any or all of the land is suitable for development.

1. INTRODUCTION

1. The Belfast has long been identified as a major urban growth area. The Northwood area was identified in the proposed City Plan (as a consequence of decisions to the Plan, 1999) as the northern preferred area for major expansions of Christchurch. Two other areas, namely South West Christchurch and Masham-Yaldhurst, were also identified through the City Plan review.
2. Since notification of the proposed City Plan, a significant amount of previously rural land has been rezoned and subdivided. In Belfast, residential urban development has largely occurred within the Northwood block, although additional areas have been, or are in the process of being developed, including smaller rural pockets adjoining Northwood adjacent to the Styx River and Johns Road respectively, as well as the more substantial land holdings between Johns Road and Main North Road. Significant commercial development also occurred in 2004 on the corner of Radcliffe Road and Main North Road with the formation of Supa Centa large format retail complex on some 7ha of land.
3. Issues began to emerge in regard to the impact of recent and future projected growth on the environment and infrastructure. Particular concerns were raised about the adequacy of the stormwater management scheme to deal with flood events, traffic congestion, and the ad hoc manner in which land was being developed. In May 2003, the Christchurch City Council resolved to prepare an Area Plan for Belfast. An Area Plan is a guiding document that takes a very broad and long term view of land development opportunities in an area, and provides a framework for managing the effects of land use change(s).
4. This report provides the basis for undertaking preliminary assessments of urban growth issues relevant to the Belfast. Assessments include those relating to the natural environment, constraints, surface and groundwater management, transportation, open space, infrastructure, urban design, landscape, community facilities, infrastructure, rural land, and economic factors. A series of land use scenarios were prepared to assess the actual and potential effects of land use change(s). These scenarios provide the basis for a preliminary assessment of urban growth issues, which begins the first phase of the Area Plan process (described in more detail in section 3).

2. RELATIONSHIP TO THE URBAN DEVELOPMENT STRATEGY

5. The urban growth potential of Belfast has been further considered as a precursor to Phase 1 of the Area Plan process and more recently as part of the Greater Christchurch Urban Development Strategy. Growth projections were initially based on Statistics of New Zealand's Subnational Family and Household Projections (medium) for 2001 census data, which projected that the number of households in Christchurch would increase by 23,400 between 2001 and 2021. Statistics New Zealand forecast that the number of persons per household ratio will continue to decline, from a ratio of 2.64 persons per household in 2001, to 2.44 by 2021.
6. The Urban Development Strategy (UDS) similarly has adopted the 2001 census data, however assumes the high net migration rate (following trends over more recent years), which translates into a projected household growth for Christchurch of 33,100 for the years 2007 to 2026. The strategy states that growth is to be managed, not promoted or inhibited, but that an 'urban limit' will be established to ensure that growth is contained within an urban boundary. It promotes the staging of land development and infrastructure to ensure that integrated planning occurs (between land use activities, infrastructure and funding), and an increase in residential densities from historical levels as a critical part of containing the extent of urban development.

7. The strategy seeks over a 35 year period (2007-2041), to steadily intensify existing urban areas, ultimately achieving a growth distribution where 60% of new development occurs in existing urban areas (as zoned for urban purposes under the City Plan in 2006). It is however still anticipated, that an additional 19,680 households will be established in Greenfield areas within Christchurch. Belfast is provided with new residential areas focused around the existing urban area, which forms the northern gateway into the City and a community services focal point. Limited opportunities for employment are also recognised. An examination of the spatial extent of land provided for residential growth in the Belfast area would indicate some 3,000 additional households being provided.
8. In conjunction with the extent of residential growth signaled for the area, Belfast has also been identified as a key location to accommodate future business growth, particularly industrial and distribution activities given its accessibility to the airport, port and settlements to the north and south via major transportation routes which service the area (i.e. the Main North railway line and the proposed Northern Arterial and Western Belfast Bypass).
9. How and where the projected residential and business growth is to be accommodated, is a key determinant of the Area Plan. A simple calculation of the land requirement to accommodate 3,000 new households, would suggest that some 200ha of Greenfield land is needed. This calculation is based on a 15 household per hectare ratio, which is identified through the UDS as the critical target for residential density in Greenfield areas.
10. In regard to business land, recent analysis indicates that Christchurch is not providing sufficient vacant and available industrial land. Further analysis is required to quantify how much additional business land should be provided in Belfast. Nonetheless, for the purpose of this assessment, significant new business growth areas are assumed to be required as has the necessity to provide essential infrastructure services for the Business 6 zoned land at Chaney's which current can only be used for expansive industrial activities which do not require sewer or water reticulation.

3. THE AREA PLAN PROCESS

11. Phase 1 involves undertaking a wide range of technical studies in a number of topic areas, including ecology, landscape, culture, heritage, land constraints, rural activities, surface and ground water management, transportation, recreation, infrastructure, urban design, and community facilities. The Phase 1 (preliminary) reports will provide a basis for considering land use options and developing a framework for managing land use change.
12. Phase 2 involves the production of two foundation documents based upon the technical assessments. The first is the 'Greenprint', which defines what must be protected and/or enhanced in the face of urban development. The Greenprint identifies areas which have significant or important natural, landscape, ecological, cultural, spiritual or heritage value, and areas which are constrained due to a natural barrier or hazard. The second is the Stormwater Blueprint. The Blueprint will state how the Styx catchment as it integrates with the Belfast study area is to be managed, protected, and if possible enhanced, in response to past adverse effects and anticipated effects from future land use change.
13. Phase 3 involves a comprehensive assessment of land use options and the preparation of a Draft Area Plan, in particular urban development opportunities. This assessment considers the outputs of Phases 1 and 2, integrates the disciplines i.e. the transportation network with the stormwater management scheme, applies the principles of sustainable management, and assesses the financial implications of each land use option. The Draft Area Plan will provide, a preferred land

use option and framework for managing this option will be recommended. Phase 4 involves the public process in confirming the Area Plan and Phase 5 the implementation of the Area Plan through statutory and other methods.

4. PROPOSED CHANGE 1 TO THE REGIONAL POLICY STATEMENT

14. The July 2007 notified Chapter 12A to the RPS introduced a detailed statutory framework for managing urban growth within the Christchurch Metropolitan in line with the Urban Development Strategy. **Objective 1** identifies that urban development within the Greater Christchurch area should be managed to achieve consolidation, with a key focus on achieving higher density development particularly in inner Christchurch and around Key Activity centres. **Objective 3** provides for urban growth limits to manage urban growth, with supporting **Policy 1** directing relevant territorial authorities to prevent urban activities locating outside the 'Urban Limits'. In relation to the existing urban areas of Belfast, **Policy 2** is relevant in that it seeks a higher level of consolidation for existing residential areas, whereas **Policy 3** seeks to ensure that sufficient Business Land is provided to encourage self-sufficiency of employment and business activities. **Policy 6** and its respective Table 2, identify for Belfast the sequencing and extent of greenfield residential development in the area.
15. Variation 4 to Change 1 was notified on 23 August 2009, and provided the application of an amended 50dBA Ldn contour, and the subsequent restriction on 'noise sensitive activities' which includes residential activity within that 50dBA Ldn contour. The imposition of this amended noise contour would result in the reduction of residential yield to the south east of Belfast, this has been identified within the Land Use Scenarios under 'Option 2'.

5. LAND USE SCENARIO OPTIONS

16. There are a number of land areas that have the potential to accommodate new residential and business development. Other than flood management areas (e.g. adjoining the Styx River corridor), waterways and substantial areas of land contamination, the study area is considered to be relatively free from land development constraints. As a means to therefore postulate land-use scenarios, the following criteria and base assumptions were developed:
 - (i). That the urbanisation of an area should be consistent with the Urban Growth objectives and policies under the Christchurch City Plan.
 - (ii). That the area signalled for urbanisation should be free from known land development constraints.
 - (iii). That a net residential density of 15 households per hectare should be achieved. Net density is the number of lots or household units per hectare. The area (ha) includes land for: residential purposes, including all open space and on-site parking associated with residential development;
 - (iv). local roads and roading corridors, including pedestrian and cycle ways, but excluding State Highways and major arterial roads;
 - (v). local (neighbourhood) reserves;

but excludes land that is

 - (i). stormwater retention and treatment areas;
 - (ii). geotechnically constrained (such as land subject to subsidence or inundation);
 - (iii). set aside to protect significant ecological, cultural, heritage or landscape values;
 - (iv). set aside for esplanade reserves or access strips that form part of a larger regional or subregional reserve network;

- (v). identified for commercial or business use, or for schools, hospitals or other district, regional or sub-regional facilities.
17. The area of land excluded from the calculation of household yield has been limited to 10% for stormwater management purposes. More is known about the area of land required for stormwater management purposes than for other constraints. As a consequence the actual (realised) household yield for each growth area is likely to be less than indicated in this preliminary assessment.
 18. That 2.6 persons should be attributed to each household. It is noted that the persons per household ratio used for this exercise is higher than the 2.5 assumed by Statistics NZ for 2021. A 2.6 household size has been adopted on the basis that typically the demand for Greenfield subdivision will come from families, which have on average, a higher persons per household ratio. However, in recognition of the projected decrease in household size, a 2.4 persons per household ratio has also been provided as a comparison.
 19. New business areas are to be extensions of existing business areas, and provide for light industrial activity generally in accordance with the Business 4 to 5 zones. Between 50-90% of each allotment will be covered by buildings and impervious surfaces.
 20. Localised commercial retail floorspace should be provided to service new greenfield residential development of a scale and character as anticipated by the Christchurch City Plan Business 1 zones, typically of a size of some 1,000m² GFA (some 4000m² land area). Provision for new district centre of a scale and character as anticipated by the Christchurch City Plan Business 2 zones of a land area of some 3ha to be located adjacent to the existing Belfast Supa Centre.
 21. That rural-residential development is limited to those existing sporadic allotments less than 4ha (e.g. north of Hussey Road), but that formal recognition by way of zoning is not undertaken. The UDS does not signal opportunities for rural-residential development within Christchurch as being appropriate. For the purpose of preliminary investigations, it is assumed that rural-residential development is not provided for and/or accommodated within residential growth pockets (i.e. through application of the 15 hh/ha ratio).
 22. From these assumptions a series of land-use 'growth' scenarios (refer Appendix 1) have been prepared. **Land-use Scenario 1** is the status-quo in terms of land zoned for urban development (as at 2006 being the operative date of the Christchurch City Plan) and is viewed as the benchmark to assess other land development scenarios against. Under this scenario, no further development of the area other than that already provided for under the City Plan would occur, and would clearly be quickly irrelevant given that it would not incorporate the current Section 293 Resource Management Act process currently underway in front of the Environment Court with all parties anticipating residential development, although the extent and staging is subject to question.
 23. **Land-use Scenario 2** assumes urban development beyond those areas identified in Scenario 1, and is considered to be a 'likely' land-use scenario based upon growth projections, the Council's urban growth objectives and policies and the areas as identified in the Regional Councils Change 1 (as amended by Variation 4). This scenario provides for approximately 3,000 new households over a land area of some 200ha. The underlying assumptions and reasoning behind this option being purported as a 'likely' growth scenario, are discussed in section 4 of this report.
 24. **Land-use Scenario 3** assumes full development of the study area. Whilst this scenario is very unlikely to be realised based on growth projections (at least within a 50 year period), it has been considered to gain at least a preliminary view on the potential effects that might arise. This scenario might also be viewed as a possible representation of possible further land areas that

would be required should a household ratio of 10hh/ha (or lower) be applied, at the expense of the provision of greenfield Industrial land in the area and involving costly remediation of contaminated areas. In that case, accommodating the same 3,000 new households in the area would require an additional 100ha of residential land over Land-use Scenario 2.

6. LAND USE SCENARIO 2

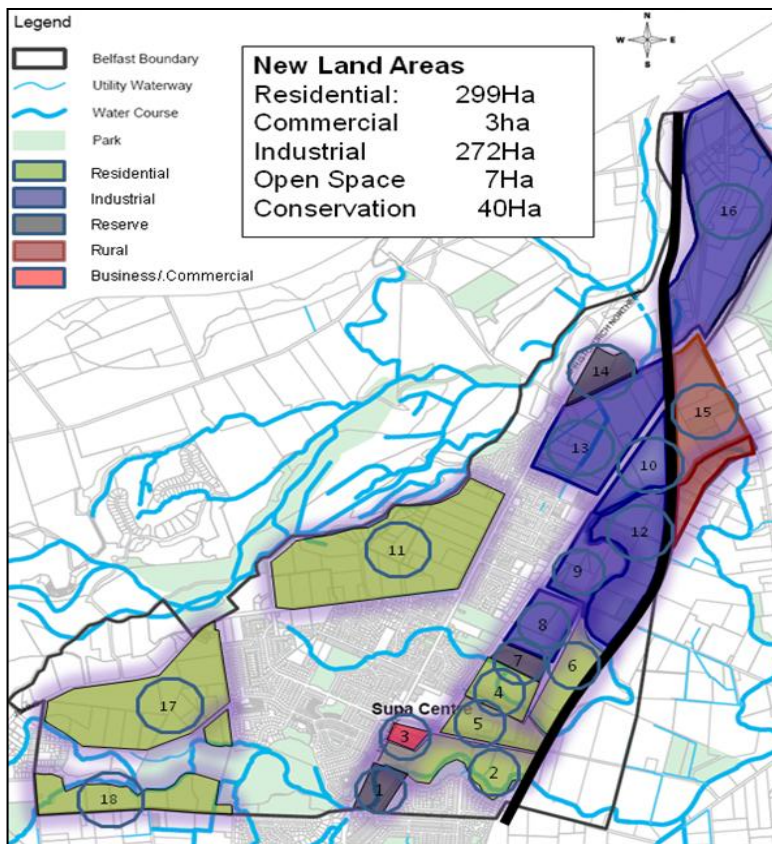
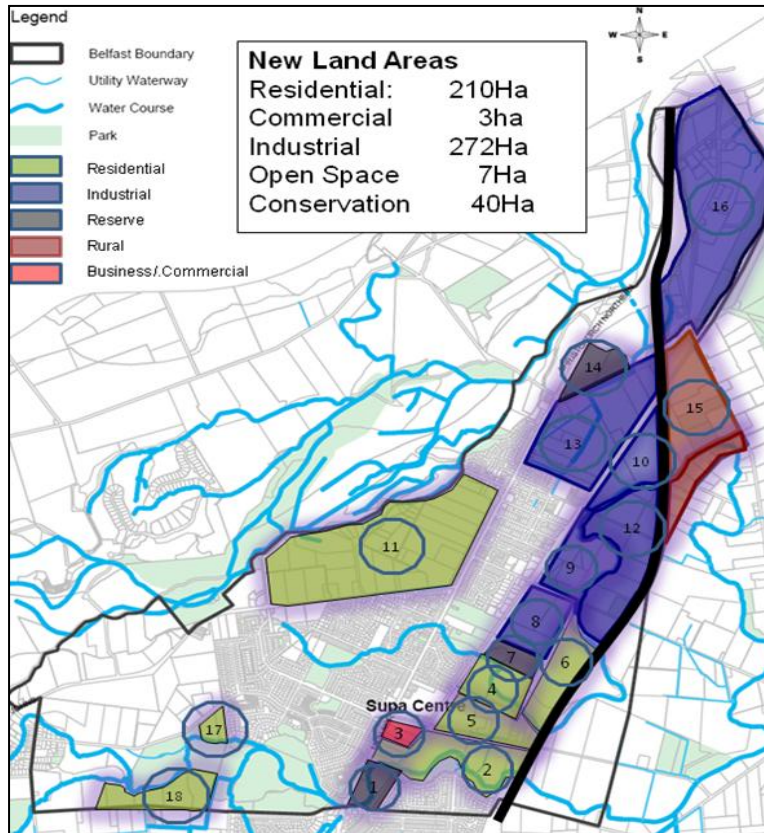
25. Scenario 2 is the most appropriate option to assess having regard to past decisions and commitments, achieving consistency with both the City Plan and Regional Council's urban growth objectives, and an assessment of population projections. Some of the additional Greenfield areas identified under Scenario 2, are already been considered for urbanisation through the City Plan and/or as part of urban growth studies.
26. The block of generally pastoral area of some 107Ha between Main North Road and Johns Road has been identified as a potential growth area as a consequence of appeals to the 1999 City Council Decisions to the City Plan. The site, currently zoned Rural 3A, lies in close proximity to essential facilities and amenity including the Belfast Supa Centa, as well as having easy access to major employment nodes at Belfast and the Airport. The area offers significant opportunities in respect of integrating an urban environment, with on-site and nearby natural features and open space including the Groynes Reserve, Clearwater and adjacent walkways. The scale of the area would provide an opportunity to develop a significant mixed residential area, whilst consolidating urban development within close proximity to Belfast. The form of such development should provide for a high degree of permeability in terms of integration with the remainder of Belfast, and provide transport access to residents via a range of modes. A proposal for partial residential development of this block is currently before the Environment Court. This partial development proposal incorporates some 400 houses and 2,700m² of commercial area. A development proposal for the entire site would entail some 1300 dwellings.
27. There is a substantial pastoral area of some 79ha located to the south of the existing Canterbury Freezing works and north of the Styx River corridor, and from the rail corridor to the west and the designation for the Northern Arterial corridor to the east that would be suitable for residential development. The benefits of residential development would be in terms of the ability to secure esplanade reserve provision adjacent to the Styx River and Kaputone Rivers, and proximity to the Supa Centa. The area would provide a logical extension to the residentially zoned area to the south of Belfast, although infrastructural constraints with regard to stormwater management and access to the wider transport network would require consideration during the formation of any Structure Plan enabling such development.
28. Table 1 and Table 2 provide a summary of the future potential residential and business growth areas and Figure 1 includes a plan depicting land use Scenarios 2 and 3. The conclusions are that if the area is urbanised to the extent depicted, some 3,000 households could be accommodated and 125ha of new business land, in addition to the provision of servicing for the existing 106ha of Business 6 zoned land at Chaney's. Scenario 2 would adequately contribute to the Greenfield component of the projected household growth for Christchurch City, as assessed under the UDS. Scenario 2 provides a significant land area to cater for business growth. It is therefore considered reasonable and justified to make reference to Scenario 2 as being a 'potential' future urban growth option, and which to provide a basis for the assessment of urban growth issues for Belfast.

Table 1: Summary of the future potential residential and business growth areas

Sub-Area Name	Sub area	Scenario 2 Land Area (hectares)	Scenario 3 Land Area (hectares)	Potential land use
Extension Styx Reserve	#1	8	8	Open space (Conservation 1)
Supa Centa extension	#2	2	2	Commercial (Business 2)
Styx North	#3	30.8	30.8	Living G
PPCS South	#4	15	15	Living G
Radcliffe North	#5	19.4	19.4	Living G
PPCS Residential	#6	25	25	Living G
Extension Sheldon Park	#7	7	7	Open Space (Open Space 2)
PPCS industrial (static)	#8	19	19	Industrial (Business 5)
PPCS North	#9	22	22	Industrial (Business 4/5)
Factory North	#10	19	19	Industrial (Business 4)
Applefields / Devondale	#11	101.4	101.4	Living G
Belfast North	#12	53	53	Industrial (Business 4)
Main North Industrial	#13	53	53	Industrial (Business 4)
Extension Otukaikino Reserve	#14	12	12	Open Space (Conservation 1)
Otukaikino	#15	52	52	Rural (Rural 3)
Chaney's (dry to serviced)	#16	106	106	Industrial
Hussey North	#17	4.4	75.5	<ul style="list-style-type: none"> Living (Living G) / Rural Scenario 1 Living (Living G) – Scenario 2.
Hussey South	#18	14	32	<ul style="list-style-type: none"> Living (Living G) / Rural Scenario 1 Living (Living G) – Scenario 2.
Total Residential		210	299	
Total Commercial		2 – 3	2 – 3	
Total Industrial		272	272	
Total Open Space		7	7	
Total Conservation		30.8*	30.8*	
Total		531Ha	610Ha	

* Total conservation includes 10.8Ha of additional esplanade reserve along the Styx River.

Figure 1: Landuse Scenario 2
Most Appropriate



Landuse Scenario 3 Full
development

Table 2: Sub Area Growth Scenarios

Sub-Area Name	RPS Change No.1 Growth Pocket	Sub-Area Land Area	Land Use Scenario	Area for Res (ha) minus 10% stormwater	Area for Bus/Ind (ha)	Area for Green-space (ha)	No. of households accom. @ 15hh/ha unless stated.	No. of people accom @	
								2.6 per/ha	2.4 per/ha
Extension Styx River		1				8			
Supa Centa Expansion		2	Extension of the Supa Centa and development as a B2 District Centre	N/A	2				
Styx North	CN4	30.8	Residential land to be developed North of the Styx River. Significant esplanade reserve (in excess of 40m) will be required along the Styx.	27.8			417	1084	1000
PPCS South	CN4	15	Residential development. Will be dependent on change of use / zoning from the existing PPCS development. Is likely to be delayed at least until 2010. Issue of contamination will need to be dealt with prior to development.	13.5			203	528	487
Radcliffe North	CN4	19.4	Residential development. Will be dependent on change of use / zoning from the existing PPCS development. Is likely to be delayed at least until 2010.	17.46			262	681	269
PPCS Residential	CN4	25	Residential development. Will be dependent on change of use / zoning from the existing PPCS development. Is likely to be delayed at least until 2010.	22.5			338	879	811
Extension Sheldon Park		7	Open space will require access issues across the rail line to be worked through.			7			
PPCS Industrial	CB1	19	Existing industrial. Likely to remain under existing use until 2010. Will then require connection to Council services.		19				
PPCS North	CB1	22	Existing industrial, with some green field area and close proximity to the Kaputone creek.		22				
Factory North	CB1	19	Greenfield industrial, will require some buffer treatment with the Kaputone.		19				
Applefields / Devondale	CN2	12.1	Area to the north of the Section 293 land which is predominantly developed with a very low density Rural Residential character.	10.9			Density 8 HH/ha = 87	226	209
	CN2	93	1.8km would be utilised for commercial activity. The remaining 91.2 hectares would be used for mixed density residential, and also provide for access, roading, landscaping, swales, parks and detention.	82.1	1.8		Density as per C41/2008 = 1,300	3,380	3,120

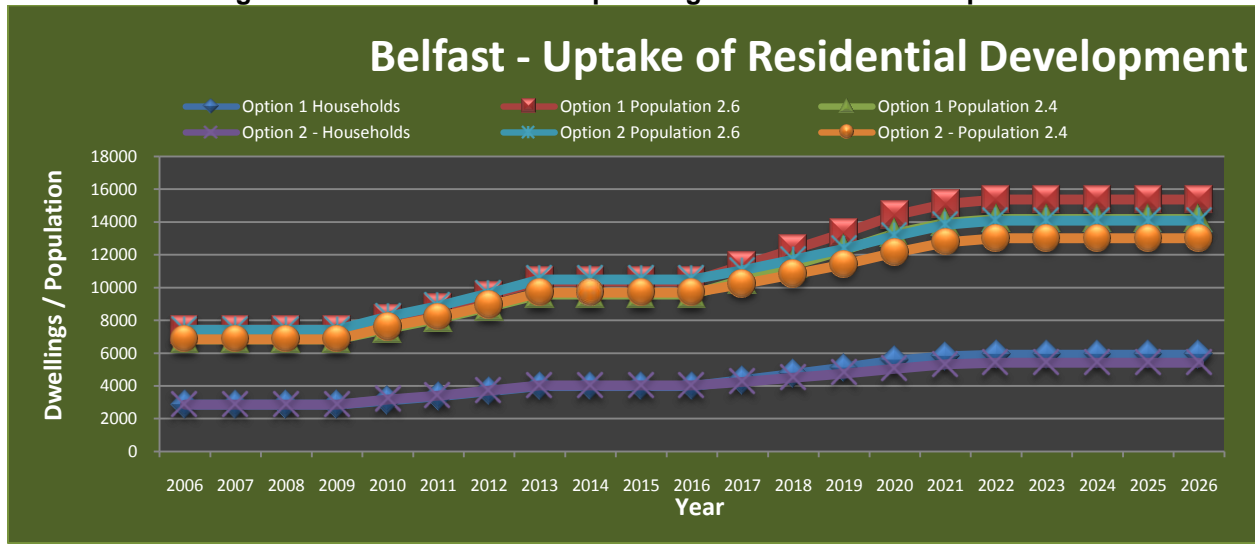
Sub-Area Name	RPS Change No.1 Growth Pocket	Sub-Area Land Area	Land Use Scenario	Area for Res (ha) minus 10% stormwater	Area for Bus/Ind (ha)	Area for Green-space (ha)	No. of households accom. @ 15hh/ha unless stated.	No. of people accom @	
								2.6 per/hh	2.4 per/hh
Belfast North	CB1	53	Rural 3 with some greenfield / rural land. Used / owned by PPCS. Likely to remain under existing use until 2010. Will then require connection to Council services.		53				
Main North Industrial	CB1	53	Low lying and will require some detention / hydrological issues to be resolved.						
Extension Otukaikino Reserve	N/A	12				12			
Otukaikino	N/A	52	To remain Rural.						
Chaney's	CB1	103	Developed for dry industry. June 2003 Industrial report indicates that 60Ha are vacant. Connection to services should provide for intensification of existing uses and development of vacant land.						
Hussey North (Option 1)	CN3	75.5	Requires Cranford Street four laning and consolidation of Belfast. Also dependent on substantial esplanade reserve to be created for the Styx River	67.9			1,019	2,649	2,445
Hussey North (Option 2)	CN3	4.4	Imposition of indicative 50 dBA Ldn noise contours would result in the retention of the Rural 3 zoning that currently relates to this area. Plan Change 10 has resulted in the remaining 4.4 Ha to be rezoned as Living 1 with a density of approximately 10 households / Ha. Unconfined aquifer limits other industrial options.	4.4Ha			@ 10hh/ha 44	114	106
Hussey South (Option 1)	CN3 (Part)	32	Component part of CG3 which also include the Upper Styx / Harewood Growth pocket. Requires Cranford Street four laning and consolidation of Belfast. Also dependent on substantial esplanade reserve to be created for the Styx River	28.8			432	1123	1037
Hussey South (Option 2)	CN3 (Part)	14	Imposition of indicative 50 dBA Ldn noise contours would result in the retention of the Rural 3 zoning that currently relates to this area. 14 ha can be developed outside of 50 dBA Ldn noise contours in conjunction with upper Styx area.	12.6			189	491	453
Total Residential Population Scenario 2				Households:		5693		14801	13663
Total Residential Population Scenario 3				Households:		6911		17968	16586

7. STAGING OF LAND DEVELOPMENT

29. The staging program for development in the Belfast has been prepared having regard to the objectives and policies of the Regional Policy Statement (Proposed Change 12A, notified on 22 July 2007), as amended by Variation 4 as notified on 23 August 2009. The Section 32 document prepared for the Change sets out the following rationale for staging of development:
- To maintain growth rates in committed peripheral growth areas elsewhere in the UDS area, thereby making the most efficient use of resources in those areas and providing locational choice for future residents.
 - To coordinate the rate of development with the provision and capacity of main trunk and local infrastructure, including social infrastructure.
 - To enable local authorities to recoup costs of development from committed areas to assist in debt financing.
30. Through development staging programs the partner authorities can effectively and efficiently carry out their statutory functions under Sections 30 and 31 relating to integrated resource management and the management of the effects of urban growth in an integrated manner. The following table depicts a possible staging of urban development, including residential and business land. The term 'staged' is expressed to mean when land is available for subdivision and occupation, thus anticipating that the land would be rezoned prior to the stated date. The reference to 'committed' indicates that the Council have already given a commitment to rezone the land for urban purposes, or at the very least have indicated that the area is potentially suitable for urban development in the City Plan.
31. The proposed staging is based upon the logical extension of the existing urban area and supporting infrastructure, namely the roading and sewer network. The provision of the Northern Arterial and the necessary provision of pumping stations and servicing of the sewer connections south to the Styx North and Radcliffe North areas are required to be completed before any major urban development in these areas can occur. Transit New Zealand's programme indicates that the construction of the Northern Arterial is to occur in the 10 year forecast, however note that the timing is indicative given that the design phase has not been completed. The proviso of an early land release date before the Northern and Western Bypass are in place will be that a reduced level of service for the local road network is accepted for the period preceding the completion of their completion (and associated local roading upgrades – refer to the Phase 1 Transportation Report).
32. The proposed staging of land development will be as follows:
- (i). Traffic congestion is such that only 600 dwellings (refer Environment Court Decision C41/2008) of residential development can occur until either of bypasses are operating. It is expected that this will occur by 2013. Traffic modelling may also reveal the ability to provide for minor residential development within the Styx North area between 2010 and 2016.
 - (ii). The first development will be at the Applefields / Devondale block, and the 600 dwellings allocated will be taken up in this development starting at the corner of Johns Road / Main North and phased towards Rosebank. The residual developments will be deferred until the construction of either bypass.
 - (iii). The Hussey North block will not be developed until the Cranford Street four laning has occurred, and development has concentrated around Belfast.
 - (iv). There is a time delay of 3 years between the when an area is zoned for development and its uptake. It is expected that uptake rates will be at 33.3% per annum (based roughly around Northwood).

Predicted growth is identified in Figure 2 below.

Figure 2: Growth curve for sequencing of residential development areas in Belfast



8. SUMMARY

33. Belfast has long been identified as a future urban growth area, and over recent times (through the Urban Development Strategy) has been reassessed in regard to its potential to absorb residential and business growth. It has been projected to accommodate some 3,000 new households over the next 35+ years and approximately 272ha of new and serviced business land. Whilst this growth assessment and the staging of land development, is based on a number of assumptions, it provides a sound basis to guide other assessments of urban growth issues facing Belfast.